



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,053	01/17/2002	Daniel W. Wong	1376.0100420	1448

34456 7590 07/14/2005

TOLER & LARSON & ABEL L.L.P.
5000 PLAZA ON THE LAKE STE 265
AUSTIN, TX 78746

EXAMINER

TRAN, PHUOC

ART UNIT	PAPER NUMBER
----------	--------------

2621

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,053

Applicant(s)

WONG ET AL.

Examiner

Phuoc Tran

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/17/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2621

1. Applicant's election with traverse of species (i) including claims 1-16, 19-27 in the reply filed on 4/22/05 is acknowledged. The traversal is on the ground(s) that the Office has not identified two distinct and proper species. This is not found persuasive because the Office action has identified two distinct species by stating distinguishing characteristic for each species. The distinguishing characteristic for species (i) requires a first data table or a second data table be used based on the block data type. The distinguishing characteristic for species (ii) requires a first data table or second data table be used based on a comparison of values associated with a first transform and a second transform. MPEP 809.02(a)(B) states:

In the absence of distinct figures or examples to identify the several species, the mechanical means, the particular material, or other distinguishing characteristic of the species should be stated for each species identified. If the species cannot be conveniently identified, the claims may be grouped in accordance with the species to which they are restricted.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 17-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/22/05.

3. The disclosure is objected to because of the following informalities: In the specification, line 13, "step 250" should be changed to "step 350".

Appropriate correction is required.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 2621

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to provide support for claim feature regarding “motion estimation is performed to determined the type of data”.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 4-8, 19, 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Jang et al [U. S. Patent No. 5,481,487].

As to claims 1, 6-8, Jang et al disclose a method comprising the steps of: receiving first data associated with a block of data at a video processor (Fig. 4, input X or Z of item 101)); when in a first mode of operation, accessing table data in a table in a first manner to perform a first transform of the first data (col. 6-30; DCT transform); and when in a second mode of operation, accessing table data in the table in a second manner to perform a second transform of the first data (col. 6-30; in the case IDCT transform), wherein the second transform is an inverse transform relative to the first transform (col. 6-30; DCT transform and IDCT transform).

As to claim 2, Jang et al disclose that the block type of video data is associated with 8X8 image data (col.9, lines 6-11).

As to claim 4, Jang et al disclose determining one of the first mode of operation or the second mode of operation based on a tag associated with the first data, wherein the tag identifies a transform associated with the first data (Fig. 4, input X or Z of item 101; col. 6-30; DCT is performed on X input while IDCT is performed on Z input)

As to claim 5, Jang et al disclose accessing the table data in the table in a row-major scheme (col. 9, lines 9-10) and accessing in a second manner includes accessing the table data in the table in a column-major scheme (col. 9, lines 17-18).

Claims 19, 21-23 simply recite a system corresponding to the method of claims 1, 4-8. Therefore, they are rejected for the same reasons.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 9, 10, 12-16, 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al [U. S. Patent No. 6,618,442].

As to claim 9, Chen et al disclose a method comprising the steps of: receiving data associated with a block of data at a video processor (col. 4, lines 1-6; col. 6, lines 45-48); when the block of data is of a first type, providing a first table to a transform engine to transform the

Art Unit: 2621

data (col. 6, lines 52-56; col. 8, lines 1-22); and when the block of data is of a second type, providing a second table to the transform engine to transform the data (col. 6, lines 52-56; col. 8, lines 24-60).

As to claim 10, Chen et al disclose using a processor to perform both DCT and IDCT transforms using matrix tables (Fig. 3, items 214, 208; col. 4, lines 1-14; col. 5, lines 1-5; col. 6, lines 19-56; col. 7, line 23 – col. 8, line 60).

As to claims 12, 14, Chen et al disclose determining the type of data (col. 6, lines 52-56)

As to claim 13, Chen et al inherently disclose that motion estimation is performed to determine the type of data (col. 5, lines 1-6; col. 6, line 17; note that in DV format, if the motion between two fields is small, 8-8 DCT mode is used. If the motion between two fields is large, 2-4-8 DCT mode is used)

As to claims 15-16, Chen et al disclose that 8-8 image data or 2-4-8 image data is identified and a different DCT matrix for 8X8 DCT mode or 2-4X8 DCT mode is used (col. 6, lines 52-56; col. 7, line 23 – col. 8, line 60).

Claims 24-27 simply recite a system corresponding to the method of claims 9-10, 12-16. Therefore, they are rejected for the same reasons.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3, 11, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang et al and Chen et al.

As to claims 3, 20, Jang et al disclose all the claim limitations as mentioned above except for 2-4-8 image data. Chen et al teach it is known to convert DV image data which contains both 8x8 image data and 2-4-8 image data into MPEG image data. It would have been obvious to one of ordinary skill in the art to apply Chen et al 's teachings in Jang et al for the purpose of converting DV image data into MPEG image data. Such modification would enhance Jang et al's device in that it can convert DV image data into MPEG image data using the DCT/IDCT unit.

As to claim 11, Chen et al disclose all the claim limitations as mentioned above except for using a row-major scheme and a column-major scheme. Jang et al teach it is known to use row-major scheme with a DCT circuit (col. 9, lines 9-10) and a column-major scheme with an IDCT circuit (col. 9, lines 17-18). It would have been obvious to one of ordinary skill in the art to apply Jang et al's teachings in Chen et al in order to efficiently utilize DCT/IDCT circuit.

Art Unit: 2621

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Friedlander et al, Ohara are cited for disclosing various DCT/IDCT circuits.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc Tran whose telephone number is (571) 272-7399. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PHUOC TRAN
PRIMARY EXAMINER